

APPENDIX B

IN-DEPTH AND EXPLORATORY CASE STUDIES

We conducted *In-depth Case Studies* of 10 school districts in five different states, and *Exploratory Case Studies* in six districts in six different states. The goal of the case studies was to provide detailed information on how the Eisenhower program operates in selected states and school districts. Further, the exploratory case studies were designed to identify issues to help inform the design of survey instruments for the National Profile component of the evaluation. (For a report of the results of our exploratory case studies, see Birman, Reeve, & Sattler, 1998.)

Selection of States, and Districts within States, for In-depth Case Studies

We used a two-pronged approach to site selection for the in-depth case studies. First we selected states and then districts. Our goal was to select two districts located in each of five states. We had three main site selection criteria: (1) demographic characteristics of states and districts and geographical region; (2) state-level education reform efforts, including the state's role in professional development; and (3) the district's approach to professional development and its relationships with other state and local reforms.

Demographic Characteristics and Geographic Region

States and districts vary in terms of the size of their populations, the demographic characteristics of their populations, and the region of the country in which they are located. To observe how the Eisenhower Professional Development Program operates in different contexts, we chose states and districts to vary on these factors.

State characteristics. We selected five states to represent different regions of the country. We chose one state from each of the following regions: the Midwest, South, Southwest, Pacific Northwest, and Northeast. Because of the need to achieve variation in terms of district size and demographic characteristics, our sample of states was weighted disproportionately toward states with relatively large populations (i.e., states with greater variety in the characteristics of local districts).

District characteristics. We considered the following demographic factors in selecting districts: 1) total enrollment, 2) racial and ethnic composition of the district's students, 3) poverty level of the district's students, and 4) percent of language minority students. These district-level characteristics are important because we hypothesized that the Eisenhower program operates differently in districts of varying size and because the Title II program is intended to serve the needs of teachers of all students, in particular those placed at risk. For this reason, we selected more than half of the sample (i.e., six districts) with relatively high percentages of students in poverty, and half of the sample with high percentages of student from racial and ethnic minority backgrounds, including two districts with high percentages of students with limited English proficiency.

In addition, because larger districts, by definition, serve larger numbers of students, and because, in general, we hypothesized that larger districts are more likely to be involved in non-traditional professional development, we selected a sample that overrepresented districts with large

numbers of students. Districts also were selected to exhibit variation in terms of urbanicity (e.g., urban, suburban, small city, and rural districts).

We compared the national distribution of enrollment, students in poverty, and percent minorities, and chose our sample to reflect these national distributions. For example, Exhibit B.1 shows how enrollment in our sample of case-study districts compares to national figures on enrollment.

EXHIBIT B.1

Number of Selected Districts by Student Enrollment

| District Enrollment | Percent of All Children Served in Districts of This Size | Number of Districts Selected for Sample |
|---------------------|--|---|
| 1-999 | 5.8 percent | 1 |
| 1,000-9,999 | 44.7 | 3 |
| 10,000-24,999 | 18.6 | 2 |
| 25,000-99,999 | 19.3 | 2 |
| 100,000+ | 11.6 | 2 |

Exhibit B.2 shows the enrollment figures, the percent of school-aged children in poverty, and the percent of non-white students in each of our case districts.

EXHIBIT B.2

Demographic Information on the 10 In-depth Case-study Districts

| | Total Enrollment | Percent School-aged Children in Poverty | Percent Non-white |
|----------------|------------------|---|-------------------|
| Boonetown, KY | 8,000 | 18.5 | 9 |
| Weller, KY | 5,000 | 38.0 | <1 |
| Richmond, NY | 9,000 | 25.9 | 63 |
| East City, NY | 1,000,000 | 30.5 | 61 |
| Maple City, OH | 64,000 | 30.3 | 43 |
| Buckeye, OH | 11,000 | 2.2 | 9 |
| Lone Star, TX | 64,000 | 56.5 | 80 |
| Rhinestone, TX | 200,000 | 33.6 | 88 |
| Riverside, WA | 19,000 | 3.9 | 11 |
| Rainforest, WA | 1,500 | 20.5 | 17 |

Selection of Exploratory Case Districts

Like the in-depth cases, we selected the six exploratory case studies, to vary by region, urbanicity, poverty level, and ethnic composition. In addition to being selected for their demographic features, the six exploratory sites also represented districts with features that we believed might influence the program's implementation. The six sites were selected to include: one district that

participated in the Eisenhower program through a consortium; at least two sites that had IHE-supported projects working in the district; and two districts located in states that received waivers from ED allowing greater proportions of Eisenhower funds to support professional development in areas outside mathematics and science. Waivers for individual states from particular legislative requirements for the use of Title II money can have important consequences for how states and districts use those funds, as can Ed-Flex status, which allows selected states to grant waivers to individual districts.

Features of State Educational Reform and Approach to Professional Development

We selected states that varied in their statewide education system and reform approaches, as well as their approaches to professional development. Features of the state's educational system and reform efforts form important contextual background for the implementation of the Eisenhower Professional Development Program. For example, the adoption of content and performance standards or a new assessment system can have dramatic implications for how states and districts direct their professional development priorities. Similarly, the presence of other educational initiatives, such as National Science Foundation-funded State Systemic Initiatives (SSI), are often integrally linked with the Eisenhower program in states and districts.

States also vary significantly in the role they play in guiding and providing professional development. Some states play virtually no role, leaving professional development almost entirely up to the discretion of local districts. In many states, the state's most active involvement in professional development is indirect; the state expresses its requirements for individual teachers' professional development through its requirements for certification and recertification. Other states, however, take much more active roles in professional development, often by setting standards for high-quality professional development, mandating that districts, schools, and teachers develop professional development plans, and by directing funds to districts expressly to support professional development.

In the sample of five states for the in-depth case studies, we chose states to have a range of approaches to reform and the extent of state involvement in professional development:

- Kentucky has implemented comprehensive school reform efforts. The Kentucky Education Reform Act of 1990 (KERA) introduced educational goals, an assessment system, increased funding for professional development, a new credentialing system, early childhood programs, technology, "full-service schools," changes in governance structure, and an equalized funding system. Professional development is a key component of KERA, which provides funding for professional development (\$23 per average daily attendance) and requires that responsibility for 65 percent of professional development funds be held by school-based councils.
- New York's content and performance standards (with the exception of social studies standards, which are considered weak) are highly regarded. Although New York has traditionally been considered to lag in professional development at the state level, the soon-to-be-implemented requirement that all students take the Regents' examinations has introduced great challenges for the state's teaching force.
- Ohio is in the process of merging content standards with new performance standards for schools and districts, as well as revising its teaching standards and introducing a

mentoring program for all beginning teachers. Ohio's content standards in mathematics were rated "exemplary" by the AFT in its review of state standards. In addition, several districts in Ohio are considered to be strong in their professional development programs.

- Texas has a strong system of holding schools and districts accountable for student performance, has raised expectations for student performance, and recently has rewritten its education code to scale back the role of state government in schools. During the 1990s, Texas mandated that all beginning teachers be assigned a mentor and that professional development be primarily school-based and designed to support the achievement of schools' performance objectives. Achievement in the state has risen in recent years; and several districts have been noted for their strong professional development programs.
- Washington focuses on content standards in their Essential Academic Learning reform. The state emphasizes school-based professional development; the state also channels teacher certification fees back to support preservice and in-service training. The state awarded districts \$30 million in Student Learning Improvement Grants in 1995-96, and about 75 percent of that money was used to support professional development.

Features of District Approach to Professional Development and Education Reforms

Even in states that are relatively highly involved in professional development, it remains primarily a local responsibility. Districts may take varying approaches to teachers' professional development. In some districts, professional development may remain centered on short-term "traditional" workshops, seminars, and conferences. Other districts may be moving toward professional development with more activities that are sustained over time and that allow teachers opportunities to practice new techniques in their classrooms and receive feedback from colleagues and professional development providers. Still other districts may focus their professional development resources on yet more "reform" types of professional development, such as teacher networks or teacher mentoring programs. We sought districts that were engaging in professional development consistent with at least several dimensions of high-quality professional development, such as extended in-depth learning opportunities, efforts to build a learning community of science and mathematics teachers, linking professional development with other state and district reforms, and use of evaluation and other types of continuous improvement efforts.

The sample of 10 districts was chosen to include examples of these and other types of approaches to professional development. We also chose districts so that our sample included districts with a range of different local reform efforts, such as NSF's Urban Systemic Initiatives or Local Systemic Change projects.

We selected districts that seemed to emphasize reform types of high-quality approaches to professional development. The approach that led us to select a district could be the district's overall plan for professional development, a piece of its approach, or even a single program. Typically we would not expect the approach to be the district's only approach to professional development, but we would want the district to give it enough emphasis to be a significant component of the district's professional development program. We attempted to achieve a range across the sample of 10 districts in the types of approaches they employ (e.g., a district that emphasizes mentoring, a district whose teachers all have individual professional development plans, a district in which professional

development is generally developed by teachers). See Chapter 3 for a detailed description of high-quality characteristics of professional development.

Exhibit B.3 provides examples of each case study district's Eisenhower-assisted professional development activities and demonstrates the variety of professional development types of activities in the districts. Exhibit B.4 provides similar information for our exploratory case sites.

EXHIBIT B.3

In-depth Case Studies

| DISTRICT PSEUDONYM | DESCRIPTION OF EISENHOWER-ASSISTED ACTIVITIES |
|---------------------|---|
| Richmond, New York | <ul style="list-style-type: none">• <i>School-based, 2-day workshop</i> focusing on "hands-on math."• Curriculum review committees, workshops, and follow-up study group activities relating to state assessment and core content in math.• <i>Resource teachers coach</i> teachers needing assistance with lesson development and delivery. |
| East City, New York | <ul style="list-style-type: none">• In-district workshops and follow-up mentoring activities focus on a variety of math and science topics, such as expanding the pilot math program, Connected Math, with the option to request in-classroom assistance as needed.• Ongoing immersion activities related to projects in conjunction with Botanical Gardens, the Bronx Zoo, and other community organizations.• Tuition reimbursement is available for college courses. |
| Maple City, Ohio | <ul style="list-style-type: none">• Lead teachers attend extended workshops to develop integrated, real-life, thematic units for elementary and middle school mathematics and science instruction.• Selected teachers attend 10, week-long summer workshops dedicated to implementing model math and science programs such as Connecting Math and Science, Building Bridges, and Hands-on Math and Science.• School-based workshops surround the implementation of "Best Practices" strategies. |
| Buckeye, Ohio | <ul style="list-style-type: none">• Lead teachers conduct hands-on inservice that supports an integrated approach to instruction and coach teachers when implementing new practices through networking, team-teaching, and mentoring.• Tuition reimbursement for out-of-district conferences, college courses, day-long, weekend, and summer workshops. |
| Rhinestone, Texas | <ul style="list-style-type: none">• Master teachers provide materials, deliver workshops using manipulatives, and provide mentoring support for the implementation of integrated math activities.• Institute focuses on improvement of algebra lesson preparation aligned with state assessment and curriculum and alignment review committees ensure articulation to state standards across grade levels. |
| Lone Star, Texas | <ul style="list-style-type: none">• During the year of our case visits, Lone Star, Texas school district was undergoing major reorganization and as a result did not offer any Eisenhower-assisted professional development activities. |

EXHIBIT B.3 (Continued)

In-depth Case Studies

| DISTRICT PSEUDONYM | DESCRIPTION OF EISENHOWER -ASSISTED ACTIVITIES |
|------------------------|--|
| Riverside, Washington | <ul style="list-style-type: none">• Task force develops science kits; committees for each grade level determine principles, activities, materials, and pilot and implement kits.• Summer Science Institute and fellowship opportunity is held in conjunction with local universities and businesses.• Teachers receive professional organization membership for journals and resources.• Short workshops focus on instruction, and support for conferences and other networking opportunities are available as needed. |
| Rainforest, Washington | <ul style="list-style-type: none">• In-district, week-long science institute focuses on hands-on activities, use of manipulatives, lesson demonstration, and instructional strategies. Follow-up includes one-on-one mentoring sessions, teacher observations, and teacher study groups.• Partnerships in Education program allows teachers to network with state and federal agencies research on potential student projects and field trips in science. |
| Weller, Kentucky | <ul style="list-style-type: none">• Goals 2000 master teachers give lesson demonstrations and coach other teachers with unit development.• In-district workshops are dedicated to teacher practice with graphing calculators for state assessment, new math requirements, state core content, and planning for the development of accountability grades for math and science.• Hands-on inservice focuses on higher order thinking skills and "good practices" and supplies applicable materials or kits.• Curriculum task force provides curriculum development and alignment workshops.• Master teachers observe and coach new teachers in the district. |
| Boonetown, Kentucky | <ul style="list-style-type: none">• Resource teachers assigned to two schools model class lessons, observe in classrooms, and coach individual teachers.• In-district workshops focus on improvement of district test scores in math.• Math teachers work on curriculum review and alignment committees.• Tuition reimbursement available for teachers of all grade levels. |
| West City, California | <ul style="list-style-type: none">• Lead teachers are selected to develop a 3-day, district-wide staff development program, weekend seminars, mentoring, and follow-up activities.• Curriculum committees work to approve adoption of new curricula.• Study groups share and compare curriculum and instruction strategies.• Tuition reimbursements, stipends, and substitutes are available for time spent at district conferences, courses, and workshops. |

EXHIBIT B.4

Exploratory Case Districts

| DISTRICT PSEUDONYM | DESCRIPTION OF EISENHOWER-ASSISTED ACTIVITIES |
|------------------------|--|
| Middle City, Wisconsin | <ul style="list-style-type: none"> • Lead teachers attend year-long institute for framework construction in math and science. • Curriculum committee plans adoption of new curricula. • In-district workshops decided by committee, focus on comprehensive standards, curriculum, and assessment, and include follow-up mini-grants for teacher's individual research projects. • Teacher task forces and study groups focus on curriculum-defining activities. • Institutes, mentoring, peer coaching focus on the improvement of math and science teaching strategies and inclusion of multicultural science education. • Internships offer teachers summer work experiences in business and industry, in order to write "real life" curriculum units. |
| South City, Florida | <ul style="list-style-type: none"> • In-district institutes and out-of district conferences focus on curriculum content and teaching methods. • Mentors lead activities to help math and science teachers improve instruction including follow-up coaching in math and science. • Mini-grants support inservice presentations and the purchase of classroom materials. • Tuition reimbursement is available for college and university programs. |
| Commuteville, Virginia | <ul style="list-style-type: none"> • Colleague teacher program focuses on needs of first-year teachers. • Lead teachers attend 30-week institute for leadership development in math and science to coach other teachers when developing concepts and integrating technology. • District operates a professional development "academy," including five-week math and science workshops and institutes used primarily for recertification. • Tuition reimbursement available for graduate courses and out-of-district conferences, and support for materials. |
| Northtown, Connecticut | <ul style="list-style-type: none"> • In-district workshops involving presentations and discussion focus on cooperative learning in math and science, and the creation of hands-on learning kits for elementary students. • Teacher representatives and lead teachers attend out-of-district conferences and institutes focusing on "best practices," such as portfolio assessment, and work in networks and study groups to share information with fellow faculty. • School-based facilitators coach and support elementary school teachers. • Tuition reimbursement available for out-of-district conferences, workshops, and institutes. |
| Countryplace, Missouri | <ul style="list-style-type: none"> • District integrates Eisenhower out-of-district conferences, workshops, and inservices on math and science with state-level reform program and professional development committee goals focusing on school improvement. • Informal study groups discuss issues before and after conferences. • Some tuition reimbursement is available for out-of district conferences. |

Selection Process

In selecting sites for the 10 in-depth case studies, we drew primarily upon three types of resources. First, we reviewed documents pertinent to states' educational systems and professional development efforts; for example, we drew heavily upon the Consortium for Policy Research in Education (CPRE) report, *Policies and Programs for Professional Development of Teachers: Profiles of the States*. Second, we discussed both states and districts with a team of outside experts in the areas of education reform and professional development. We consulted the following experts:

- Susan Fuhrman of CPRE,
- Jane David of Bay Area Research Group,
- Katie Haycock of the Education Trust,
- Marsha Levine of George Washington University,
- Barbara Scott Nelson of the Education Development Corporation,
- Barbara Neufeld of Education Matters,
- Michael Knapp of the University of Washington,
- Jan Kettelwell of the University of Georgia, and
- Members of our design team:
 - Mary Kennedy, Michigan State University,
 - Susan Loucks-Horsley, WestEd, National Academy of Sciences
 - Jennifer O'Day, University of Wisconsin, Madison,
 - Senta Raizen, The National Center for Improving Science Education, WestEd,
 - Thomas Romberg, Wisconsin Center for Education Research, and
 - Norman Webb, Wisconsin Center for Education Research.

Finally, in collecting information about potential district case sites, we received information from the state Eisenhower coordinators in many states.

Data Collection Procedures

Exploratory Case Studies

In April and May of 1997, we conducted focus groups of teacher-participants in Eisenhower-assisted activities and professional development providers of Eisenhower-assisted activities, in each of the six exploratory case districts. Each focus group included approximately 10 participants, chosen

to reflect a range of variation of experiences and perspectives. In the focus groups, we asked questions about: 1) school organization and decision making; 2) curriculum and instruction; 3) characteristics of professional development activities; 4) teachers' and principals' goals for professional development, and how they learn about activities and choose among opportunities; 5) links among different professional development activities and between professional development activities and other reforms; 6) ways the school supports or constrains teachers' ability to take advantage of professional development opportunities; and 7) perceptions of the effectiveness and usefulness of the activities.

In addition, we conducted semi-structured interviews with district-level staff in each of the districts. In each of the six exploratory case districts, we conducted interviews with the superintendent, the Eisenhower coordinators, other professional development coordinators in the district, and the mathematics and science coordinators.

In-depth Case Studies

We conducted our in-depth case studies from January through June of 1998. We spent a total of one week (i.e., approximately five to seven work days) in each of the 10 selected districts. Two trained interviewers from our research team went to each site. We spent about one day conducting interviews at the state level, between a half a day and a day conducting district-level interviews, and between three and four days interviewing and observing teachers and principals at schools in the district. These interviews and observations at three schools in each of our case-study districts were part of the Longitudinal Study of Teacher Change. (For details on the design and methodology of this component of the evaluation, see Appendix C; for the results of this part of the study, see Chapter 2.)

For the in-depth case studies, we conducted approximately six semi-structured interviews with state-level staff in each state, including the Eisenhower SEA and SAHE coordinators, and professional development, curriculum, Title I, and evaluation coordinators. We asked state-level coordinators questions about the following topics: 1) the state's organizational structure as it pertains to the education department; 2) the state's professional development efforts, and how the Eisenhower program fits into those efforts; 3) systemic reform efforts that are occurring in the state; 4) practices and policies for targeting and recruiting teachers for professional development; and 5) the state processes and procedures for continuous improvement such as assessing professional development needs, and planning, evaluating, and monitoring efforts.

In addition to the state-level interviews, we also conducted about four or five interviews in each of the 10 case districts with district-level staff, including the district Eisenhower coordinator, the coordinator of activities sponsored by institutions for higher education, if such activities existed in the district, and the professional development, curriculum, and Title I coordinators. Thus, we conducted about 30 state-level interviews and 43 district-level interviews in all 5 in-depth case study states combined.

In the district-level interviews, we asked questions about how decisions were made about the use of Title II funds, and the nature and extent of the coordination and alignment of the Eisenhower-assisted activities with other professional development and education reform efforts. Interviews also addressed the following topics: 1) the district structure and how Eisenhower funds are administered within that structure; 2) the administration of the Eisenhower-assisted activities program, and how the district's Eisenhower program fits into state and district reform efforts; 3) the relationship

between the Eisenhower-assisted activities and local or state systemic reform efforts; 4) targeting and recruiting teachers to participate in Eisenhower-assisted professional development activities; and 5) continuous improvement efforts, such as needs, assessments, planning, guidance, technical assistance, monitoring, and reporting.

In addition, for each case district, interviewers collected and reviewed state and district documents, such as curriculum standards and assessments, as well as extensive documentation on the professional development activities that the district provided, including examples of curricula for activities, and schedules and syllabi for the activities.